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PATENT APPLICATION
Serial No. 09/580,516

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Niranjan Tripathy, et al.
Serial No.:	09/580,516
Filing Date:	May 25, 2000
Group Art Unit:	2145
Examiner:	Melvin H. Pollack
Title:	**ELEMENT MANAGEMENT SYSTEM WITH AUTOMATIC REMOTE BACKUP OF NETWORK ELEMENTS LOCAL STORAGE**

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Willie Jiles
Willie Jiles
Date: February 21, 2006

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Dear Sir:

Appeal Brief

Appellants have appealed to the Board of Patent Appeals and Interferences (the "Board") from the decision of the Examiner mailed August 19, 2005, finally rejecting all pending Claims 1-21. Appellants filed a Notice of Appeal on December 19, 2005 together with a check in the amount of $500.00 pursuant to 37 C.F.R. 1.17(b).

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Real Party In Interest

Fujitsu Limited currently owns this application, and an Assignment was filed with the U.S. Patent and Trademark Office on December 16, 2005.

Related Appeals and Interferences

To the knowledge of Appellants' counsel, there are no known interferences or judicial proceedings that will directly affect or be directly affected by or have a bearing on the Board's decision regarding this Appeal.

Status of Claims

At the time of the final Office Action, Claims 1-21 were pending. In the Office Action, the Examiner rejects Claims 1-21. All pending claims are shown in Appendix A, attached hereto, along with an indication of the status of those claims.

Status of Amendments

Appellants attempted to amend Claims 4, 12, 20 and 21 in Appellants' Response Pursuant to 37 C.F.R. § 1.116 filed October 19, 2005. These amendments were not entered by the Examiner according to the Advisory Action mailed November 18, 2005. The submitted amendments to Claims 4, 12, 20 and 21 are shown in Appendix B, attached hereto. Appellants respectfully request that these amendments be entered because they present the claims in better form for consideration on appeal.

Summary of Claimed Subject Matter

Particular embodiments include an element management system that can be used to perform automatic remote backup of network elements. A backup procedure may be launched on a programmed schedule, to maintain a centrally located copy of local data stored in the network elements (or their subcomponents). In some embodiments, the operating database of the network elements is stored in a "Software Repository" at a centralized location. *(Page 8, Lines 16-24)*

The element management system may include NETSMART, illustrated in Figure 1, which combines functions of element management and network management layers of a telecommunications management network model to provide comprehensive management capabilities to users of networking products. *(Page 12, Lines 16-20)*

Particular embodiments include network element software management that can perform remote network element software upgrades via OSI DCN, remote network element database backup and restoration via OSI DCN, remote network element software upgrades via IP DCN and remote network element database backup and restoration via IP DCN. *(Page 14, Lines 14-22)*

Particular embodiments include remote memory backup (RMBU) that backs up a configuration database on a network element to a NETSMART database. The backed-up network element configuration information can either be extracted onto any machine or can be restored from the network element database. A remote memory backup from an OSI network element may be accomplished by copying configuration files to a RAM disk on the network element from active memory and copying the files from the network element's RAM disk to NETSMART using the OSI FTAM protocol. A remote memory backup from an IP gateway network element may be accomplished by copying configuration files to a RAM disk on the network element from active memory and copying the files from the network element's RAM disk to NETSMART using the FTP protocol. A remote memory backup from an IP subtending network element may be accomplished by copying configuration files to a RAM disk on the network element from active memory and using the OSI FTAM protocol to copy the configuration files from the subtending network element's RAM disk to

its gateway's RAM disk. The configuration files are then copied to NETSMART using the FTP protocol. *(Page 41, Line 5 – Page 42, Line 2)*

In some embodiments a network element may include hardware only or a combination hardware and software system that is primarily designed to directly perform a telecommunications service function. For example, a network element is the part of network equipment where a transport entity (such as a line, path or section) is terminated and monitored. *(Page 121, Lines 8-11)*

Grounds of Rejection to be Reviewed on Appeal

I. Appellants request that the Board review the Examiner's rejection of Claims 1-4, 8, 12, 16 and 20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,910,984 issued to Low ("*Low*").

II. Appellants request that the Board review the Examiner's rejection of Claims 5, 9, 13 and 17 under 35 U.S.C. 103(a) as being unpatentable over *Low* as applied to claims 4 and 12 and further in view of U.S. Patent 5,768,353 to Browne ("*Browne*").

III. Appellants request that the Board review the Examiner's rejection of Claims 6, 10, 14, 18, and 21 under 35 U.S.C. 103(a) as being unpatentable over *Low* as applied to claims 4 and 12 and further in view of U.S. Patent 5,862,325 to Reed, et al. ("*Reed*").

IV. Appellants request that the Board review the Examiner's rejection of Claims 7, 11, 15, and 19 under 35 U.S.C. 103(a) as being unpatentable over *Low* as applied to Claims 4 and 12 and further in view of *Browne* and *Reed*.

Argument

The Examiner's rejections of Claims 1-21 are improper, and the Board should withdraw the rejections for the reasons given below.

I. The Examiner's Rejections of Claims 1-4, 8, 12, 16 and 20 are Improper

The Office Action rejects Claims 1-4, 8, 12, 16 and 20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,910,984 issued to Low ("*Low*"). Appellants respectfully submit that *Low* does not disclose each and every element of these claims.

A. Claims 1-3 are Allowable over *Low*

Claim 1 recites a computer/software system for managing telecommunication network elements comprising "one or more operator-driven processes which monitor and manage network elements of a voice and data network, in real time, using at least one telecommunications network control channel" and "automatically initiated background processes which remotely backup information which has been locally stored in ones of said network elements."

Low does not disclose, teach, or suggest each element of Claim 1. *Low* teaches a service-providing apparatus (SPA) with a normal service logic 50 and a backup service logic 52. *See Low*, col. 10, lines 41-53; Figure 10. The first service logic saves relevant state data for processing the call segment (CS) service request to a reliable store 55 of the SPA. *Id.* at col. 10, line 58 to col. 11, line 3; Figure 10. If the normal service logic 50 fails, then backup service logic 52 processes the call segment using the state data stored in the reliable store 55 of the SPA. *Id.* at col. 11, lines 19-24; Figure 10. The Examiner contends that SCP 12 and Adjunct 13 of Figure 1 are network elements. *See* Office Action, page 4, ¶ 11. Both SCP 12 and Adjunct 13 of Figure 1 are SPAs. *See Low*, col. 2, lines 18-31. Any backing up disclosed by *Low* is occurring locally at the SPA(s) and not remotely. *See Low*, Figure 10; col. 10, line 47 to col. 11, line 15. Therefore, *Low* does not disclose, teach, or suggest remotely backing-up information which has been locally stored *in ones of said network elements*.

In response to Appellants' remarks in the response dated May 26, 2005, the Office Action states that "Low teaches that the SPAs discussed may be the SCP and Adjunct, but may also be the SLEE/SLP (Fig. 1, #15 in view of col. 10, lines 40-50)." Office Action, page 2, ¶ 2. The Office Action also states that "SPAs #12 and #13 serve as monitors and backups for SSP devices (Fig. 1, #10) and CS processing devices (Fig. 4) wherein the data being backed up on SPA #12 includes information from remote components (col. 10, line 58 – col. 11, #20). Because of Low's monitoring hierarchy, the system is one of Low performing backup services for remote devices, and the rejection stands." *Id.* Thus, the Office Action contends that SPA 12 of *Low* remotely backs up information from CS processing devices and "remote components."

However, in actuality *Low* discloses a reliable backup store 55 that saves information for use by second service logic 52 upon failure of first service logic 50, both of which are a part of SPA 12. *See, e.g., Low*, col. 10, line 58 – col. 11, line 20. Reliable backup store 55 saves data for processing CS service requests. *See id.* However, there is no disclosure in *Low* for the remote backup of information that has been locally stored in a network element. *Low* does not disclose that the same information stored in reliable back store 55 is also stored at a remote network element, whether a call segment processing device, SPA 12 or otherwise. In addition, while the Office Action also mentions the SLEE/SLP as a potential network element manager performing backup of locally stored information, Appellants note that an SPA in *Low* (e.g., SCP 12 or Adjunct 13) provides SLEE functionality; but there is no disclosure of remote backup of information stored at a network element in connection with providing this functionality.

Therefore, for at least these reasons, Appellants respectfully submit that *Low* does not disclose each element of Claim 1 and request allowance of Claim 1.

Claims 2 and 3 depend from Claim 1. Therefore, Appellants respectfully submit that Claims 2 and 3 are patentably distinguishable from *Low* for at least the same reasons as those discussed above regarding Claim 1.

B. Claims 4, 8, 12, 16 and 20 are Allowable over *Low*.

Claim 4 recites:

> A method for managing a plurality of network elements of a telecommunications network comprising:
>
> coupling a telecommunications network element manager with a plurality of network elements that provide voice network connectivity, using at least one telecommunications network control channel;
>
> each network element being operable to store respective local data regarding the configuration or operation of the network element;
>
> receiving, from each of the plurality of network elements, the respective local data; and
>
> storing the respective local data at a database of the network element manager.

Independent Claims 12 and 20 recite similar, although not identical, elements.

In the rejection of Claim 4, the Office Action cites to "reliable store 55" of Figure 10 of *Low* as support for the claim element storing the respective local data at a database of the network element manager. *See* Office Action, page 5, ¶ 14. However, the Examiner contends that SCP 12 and Adjunct 13 of Figure 1 are network elements. *See* Office Action, page 4, ¶ 11. Both SCP 12 and Adjunct 13 of figure 1 are SPAs. *See Low*, col. 2, lines 18-31. Reliable store 55 is an internal component of the SPA(s). *See Low*, Figure 10. Any backing up disclosed by *Low* is occurring locally at the SPA(s) and not at a database of a network element manager. As indicated above in the discussion of Claim 1, the Examiner in the "Response to Arguments" section of the Office Action suggests that SLEE 15 of *Low* may act as a network element manager in performing backup for SCP 12 and Adjunct 13 and that SCP 12 and Adjunct 13 may act as network element manager in performing backup for SSP 10. However, as discussed above with respect to the discussion of Claim 1, *Low* discloses a reliable backup store 55 that saves information for use by second service logic 52 upon failure of first service logic 50, both of which are a part of SPA 12. *See, e.g., Low*, col. 10, line 58 – col. 11, line 20. Reliable backup store 55 saves data for processing CS service requests. *See id.* There is no disclosure in *Low* for storing at a database of a network element manager respective local data received from network elements. *Low* does not disclose that the same information stored in reliable back store 55 is also stored at a remote network element, whether a call segment processing device, SPA 12 or otherwise. In addition, while

the Office Action also mentions the SLEE/SLP as a potential network element manager performing backup of locally stored information, Appellants note that an SPA in *Low* (e.g., SCP 12 or Adjunct 13) provides SLEE functionality; but there is no disclosure of storing at a network element manager local data received from network elements.

Therefore, for at least these reasons, Appellants respectfully submit that *Low* does not disclose each element of Claim 4 and request allowance of Claim 4. Furthermore, Claims 12 and 20 include similar elements and thus are also allowable for similar reasons. Therefore, Appellants respectfully request allowance of Claims 4, 12 and 20.

Claim 8 depends from Claim 4, and Claim 16 depends from Claim 12. Therefore, Appellants respectfully submit that Claims 8 and 16 are patentably distinguishable from *Low* for at least the same reasons as those discussed above regarding Claims 12 and 20.

II. The Examiner's Rejections of Claims 5, 9, 13 and 17 are Improper

The Examiner rejects Claims 5, 9, 13 and 17 under 35 U.S.C. 103(a) as being unpatentable over *Low* as applied to claims 4 and 12 and further in view of U.S. Patent 5,768,353 to Browne ("*Browne*"). Appellants respectfully submit that Claims 5, 9, 13 and 17 are patentable over the cited art used in these rejections.

Claims 5 and 9 each depends, either directly or indirectly, from Claim 4, and Claims 13 and 17 each depends, either directly or indirectly, from Claim 12. Therefore, Appellants respectfully contend that Claims 5, 9, 13 and 17 are each patentably distinguishable from the cited art used in the rejections, for example, for the same reasons discussed above with regard to their respective base claims.

In addition, the M.P.E.P. sets forth a strict legal standard for finding obviousness based on a combination of references. According to the M.P.E.P., "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge [that was] generally

available to one of ordinary skill in the art" at the time of the invention. M.P.E.P. § 2143.01. The fact that references can be combined or modified does not render the resultant combination [or modification] obvious unless the prior art also suggests the desirability of the combination or modification. *See id.*

The governing Federal Circuit case law makes this strict legal standard even more clear.[1] According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine or modify prior art references is an essential component of an obviousness holding." *In re Sang-Su Lee,* 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.,* 229 F.3d 1120, 1124-25, 56 U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000)). "Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved." *In re Dembiczak,* 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). However, the "range of sources available . . . does not diminish the requirement for actual evidence." *Id.* Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." *In re Mills,* 916 F.2d at 682, 16 U.S.P.Q.2d at 1432. *See also In re Rouffet,* 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (holding a *prima facie* case of obviousness not made where the combination of the references taught every element of the claimed invention but did not provide a motivation to combine); *In Re Jones,* 958 F.2d 347,351,21 U.S.P.Q.2d 1941, 1944 (Fed. Cir. 1992) ("Conspicuously missing from this record is any evidence, other than the PTO's speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at" the claimed invention.). Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed modification or combination is not sufficient to establish a *prima facie* case of obviousness. *See In re Fine,* 837 F.2d 1071, 1075,5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

[1] Note M.P.E.P. 2145 X.C. ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

The Office Action states "[a]t the time the invention was made, one of ordinary skill in the art would have used the Browne method in Low in order to utilize legacy systems (col. 9, lines 34-55)." Office Action, pages 6-7, ¶ 18. However, the cited passage does not disclose the desirability of using legacy systems in the method of *Low*, but merely establishes that the data analyzer of the *Browne* reference utilizes the listed technologies. *See Browne*, col. 9, lines 34-56. Appellants submit that a person of ordinary skill in the art would not be motivated to reference "an inter-network accounting system . . . [allowing] call records to be sorted according to the network operator to be charged in respect of the calls, prior to being priced and charged," as taught by *Browne*, when modifying "a telecommunications network architecture... for effecting basic call processing to set up, maintain and clear calls," as taught by *Low*. *See Browne*, Abstract; *Low* Abstract.

In response to Appellants' arguments related to the motivation to combine *Low* and *Brown* as suggested by the Examiner, the Office Action states that *Low* "is silent regarding specific protocols and network types within the generic telecomm network" and that because of this "one of ordinary skill in the art would have been motivated to go out and learn network protocols to be used in a telecommunications network." Office Action, page 3, ¶ 5. The Office Action also states that *Brown* discloses "methods of transferring data from various network entities within a Low-style telecommunications network, and the necessary protocols therewith to transfer data and to handle telecommunications databases." *Id.* The Office Action then notes the OSI networks and RAM/FTAM systems of *Brown* and states that "one of ordinary skill in the art would have had to use this protocol or else throw out this legacy equipment" and "would have used Brown in order to perform Low while using legacy equipment, which would therefore cut down on costs."

The Office Action fails to cite any portion in the cited art to support the conclusory combination statements that "one of ordinary skill in the art would have had to use this protocol or else throw out this legacy equipment" and "would have used Brown in order to perform Low while using legacy equipment, which would therefore cut down on costs." The Office Action cites two portion of *Brown* as providing the motivation to combine. The Office Action cites to column 9, lines 34-55 which merely states that the data analyzer of *Brown* utilizes a number of particular technologies. *See* Office Action, page 7, ¶ 18 and *Brown*, col.

9, lines 34-55. The Office Action also cites to column 1, lines 50-55 of *Brown* which merely states that it is important that data be processed and collected in connection with communication instances arising outside an operator's network but terminating in or crossing the operator's network. *See* Office Action, page 3, ¶ 6 and *Brown*, col. 1, lines 50-55. Neither of these portions of the cited art supports the conclusory Office Action statements for providing the motivation to combine the references. The Office Action provides no support either in *Low* or *Brown* for the contention that one skilled in the art would have had to use certain protocols or else throw out legacy equipment.

The Office Action provides no support for the contention that *Brown* discloses a method of transferring data from network entities within a *Low*-style telecommunications network. *Brown* discloses an inter-network call accounting system that allows call records to be sorted according to the network operator that should be charge. The system comprises a district data collector, a streamer system, a company system and a client system between two PSTNs. *See Brown*, col. 5, line 25 – col. 6, line 46 and Figure 1. *Low* discloses a fault tolerant telecommunications architecture with a switching system for effecting call setup, call maintenance and call clearance. There is no disclosure that *Brown*'s method is used "in a Low-style telecommunication network." The only similarity between the two references is that they may both be used in a telecommunications environment.

Even if the Office Action's proposed modifications were even possible, the rejections would still be improper because as discussed above the Examiner has not shown the required teaching in the prior art to combine *Low* and *Brown*. There is no citation to the specific teaching in the prior art that would motivate the combination, as required by the M.P.E.P. and governing Federal Circuit caselaw.

Thus, Appellants respectfully submit that the Examiner's conclusory assertion that it would have been obvious to combine the teachings of *Low* and *Brown* to arrive at Appellants' invention is entirely insufficient to support a *prima facie* case of obviousness under 35 U.S.C. § 103(a) under the M.P.E.P. and the governing Federal Circuit case law. For at least these additional reasons, Appellants respectfully submit that Claims 5, 9, 13 and 17 are patentable over the cited art used in the rejections and request that these claims be allowed.

III. The Examiner's Rejections of Claims 6, 10, 14, 18 and 21 are Improper

The Examiner rejects Claims 6, 10, 14, 18, and 21 under 35 U.S.C. 103(a) as being unpatentable over *Low* as applied to claims 4 and 12 and further in view of U.S. Patent 5,862,325 to Reed, et al. ("*Reed*"). Appellants respectfully submit that Claims 6, 10, 14, 18 and 21 are patentable over the cited art used in these rejections.

Claims 6 and 10 each depends, either directly or indirectly, from Claim 4, and Claims 14 and 18 each depends, either directly or indirectly, from Claim 12. Therefore, Appellants respectfully contend that Claims 6, 10, 14 and 18 are each patentably distinguishable from the cited art used in the rejections, for example, for the same reasons discussed above with regard to their respective base claims.

Claim 21 recites storing respective local data received from a plurality of telephony network elements at a database of a telephony network element manager. As discussed above with respect to Claim 4, the cited art used in the rejections does not disclose, teach or suggest storing local data received from network elements at a network element manager. Therefore, for at least these reasons, Appellants respectfully submit that Claim 21 is patentable over the cited art used in the rejections and request allowance of Claim 21.

Moreover, *Reed* does not disclose each element of Claims 6, 10, 14, 18 and 21 for which it is relied upon. In rejecting these claims, the Office Action states that *Low* does not disclose each claim element. *See* Office Action, page 7, ¶ 20. The Office Action then states that *Reed* "teaches a method (abstract) of handling databases in the voice/data environment (col. 1, line 1 – col. 10, line 10) for which backup processes have been used using the above method (col. 93, lines 15-30; col. 114, lines 10-35)." *Id.* However, these portions of *Reed* cited by the Office Action merely disclose storing backup copies of a provider database or consumer database and general discussion regarding an FTP partner server and server object. The Office does not cite to any portion of *Reed* as disclosing, for example each element of Claim 6, an IP gateway network element having an active memory and a random access memory, copying configuring files to the random access memory from the active memory

and copying contents of the random access memory to the network element manager using FTP protocol. The mere fact that reference mentions backing up data and IP and FTP protocols does not provide the necessary disclosure for the above-referenced claim elements. The Office Action cites no disclosure of any art for these elements.

In addition, the Office Action states, in discussing the IP and FTP disclosure of *Reed*, that "the addition of such systems includes the desirability factor of improving naming methods for communications entities (col. 81, lines 35-60) that make it easier for entities to identify each other during monitoring processes (col. 81, lines 40-45)." Office Action, page 4, ¶ 7. The Office Action further states that one of ordinary skill "would have used Reed to learn protocol systems that would improve Low's efficiency in monitoring, particular since Low requires identifying the status of connections." *Id.* The portions of *Reed* cited in the Office Action to support the combination with *Low* disclose advantages of a communications object system for deploying a global name resolution service. This disclosure has nothing to do with *Low*'s fault tolerant telecommunications architecture with a switching system for effecting call setup, call maintenance and call clearance. The Office Action fails to cite any portion in the cited art to support the conclusory combination statement regarding using *Reed* to learn protocol systems or *Low*'s efficiency in monitoring. Again, no portion of the cited art provides the specific motivation required by the M.P.E.P. and the Federal Circuit to support a combination of *Low* and *Reed*.

For at least these additional reasons, Appellants respectfully submit that Claims 6, 10, 14, 18 and 21 are patentable over the cited art used in the rejections and request that these claims be allowed.

IV. The Examiner's Rejections of Claims 7, 11, 15 and 19 are Improper

The Examiner rejects Claims 7, 11, 15, and 19 under 35 U.S.C. 103(a) as being unpatentable over *Low* as applied to Claims 4 and 12 and further in view of *Browne* and *Reed*. Appellants respectfully submit that Claims 7, 11, 15 and 19 are patentable over the cited art used in these rejections.

Claims 7 and 11 each depends, either directly or indirectly, from Claim 4, and Claims 15 and 19 each depends, either directly or indirectly, from Claim 12. Therefore, Appellants respectfully contend that Claims 7, 11, 15 and 19 are each patentably distinguishable from the cited art used in the rejections, for example, for the same reasons discussed above with regard to their respective base claims.

In addition, the Office Action states that Claims 7, 11, 15 and 19 are rejected for reasons discussed with respect to Claims 5 and 6. *See* Office Action, page 7, ¶ 22. Appellants thus submit that Claims 7, 11, 15 and 19 are allowable for the reasons discussed above with respect to Claims 5 and 6.

Conclusion

Appellants have demonstrated that the present invention, as claimed, is clearly distinguishable over the prior art cited by the Examiner. Therefore, Appellants respectfully request the Board of Patent Appeals and Interferences to reverse the Examiner's final rejection of the pending claims and instruct the Examiner to issue a notice of allowance of all pending claims.

Appellants have enclosed a check in the amount of $500.00 for this Appeal Brief. Appellants believe no additional fees are due. The Commissioner is hereby authorized to charge any fee and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Date: February 21, 2006

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Appendix A: Claims on Appeal

1. (Previously Presented) A computer/software system for managing telecommunication network elements, comprising:

one or more operator-driven processes which monitor and manage network elements of a voice and data network, in real time, using at least one telecommunications network control channel; and

automatically initiated background processes which remotely backup information which has been locally stored in ones of said network elements.

2. (Previously Presented) The system of Claim 1, wherein said background processes launch automatically on a programmed schedule.

3. (Previously Presented) The system of Claim 1, wherein said background processes also can remotely restore information which had been locally stored on ones of said network elements.

4. (Previously Presented) A method for managing a plurality of network elements of a telecommunications network, comprising:

coupling a telecommunications network element manager with a plurality of network elements that provide voice network connectivity, using at least one telecommunications network control channel;

each network element being operable to store respective local data regarding the configuration or operation of the network element;

receiving, from each of the plurality of network elements, the respective local data; and

storing the respective local data at a database of the network element manager.

5. (Previously Presented) The method of Claim 4, wherein at least one of the plurality of network elements comprises an OSI network element having an active memory and a random access memory that is coupled for communication with the active memory, further comprising:

copying configuration files to the random access memory, from the active memory; and

copying contents of the random access memory to the network element manager using OSI FTAM protocol.

6. (Previously Presented) The method of Claim 4, wherein at least one of the plurality of network elements comprises an IP gateway network element having an active memory and a random access memory that is coupled for communication with the active memory, further comprising:

copying configuration files to the random access memory, from the active memory; and

copying contents of the random access memory to the network element manager using FTP protocol.

7. (Previously Presented) The method of Claim 4, wherein at least a first one of the plurality of network elements comprises an IP subtending network element having an active memory and a first random access memory that is coupled for communication with the active memory, and at least a second one of the plurality of network elements comprises a gateway having a second random access memory, further comprising:

copying configuration files to the first random access memory, from the active memory;

copying contents of the first random access memory to the gateway using FTP protocol; and

copying contents of the second random access memory to the network element manager using OSI FTAM protocol.

8. (Previously Presented) The method of Claim 4, further comprising:

detecting, at the network element manager, a corrupted network element database associated with one of the plurality of network elements; and

restoring the corrupted network element database with configuration data regarding the corrupted network element database, stored at the network element manager.

9. (Previously Presented) The method of Claim 8, wherein the network element having the corrupted network management database comprises an OSI network element having a random access memory and a standby memory that is coupled for communication with the random access memory, further comprising:

copying configuration files from the network element manager to the random access memory;

copying the configuration files from the random access memory to the standby memory; and

activating the standby memory.

10. (Previously Presented) The method of Claim 8, wherein the network element having the corrupted network management database comprises an IP gateway network element having a random access memory and a standby memory that is coupled for communication with the random access memory, further comprising:

copying configuration files from the network element manager to the random access memory using FTP protocol;

copying the configuration files from the random access memory to the standby memory; and

activating the standby memory.

11. (Previously Presented) The method of Claim 8, wherein the network element having the corrupted network management database comprises an IP subtending network element having a first random access memory and a standby memory that is coupled for communication with the first random access memory, and wherein at least one of the plurality of network elements comprises a gateway having a second random access memory, further comprising:

copying configuration files from the network element manager to the second random access memory;

copying the configuration files from the second random access memory to the first random access memory using OSI FTAM protocol;

copying the configuration files from the first random access memory to the standby memory; and

activating the standby memory.

12. (Previously Presented) A network element manager, comprising:

an interface being operable to communicate with a plurality of network elements of a voice and data network, using at least one telecommunications network control channel, and receive respective local configuration data regarding the plurality of network elements; and

a memory operable to store the respective local configuration data regarding the plurality of network elements.

13. (Previously Presented) The network element manager of Claim 12, further comprising:

a first processor;

at least one of the network elements comprising an OSI network element having a second processor, an active memory and a random access memory that is coupled for communication with the active memory;

the second processor being operable to copy configuration files from the active memory to the random access memory; and

the first processor being operable to copy the configuration files from the random access memory to the memory.

14. (Previously Presented) The network element manager of Claim 12, further comprising:

a first processor;

at least one of the network elements comprising an IP gateway network element having a second processor, an active memory and a random access memory that is coupled for communication with the active memory;

the second processor being operable to copy configuration files from the active memory to the random access memory;

the first processor being operable to copy the configuration files from the random access memory to the memory; and

the interface being operable to receive the configuration files from the IP gateway network element using the FTP protocol.

15. (Previously Presented) The network element manager of Claim 12, further comprising:

a first processor;

at least a first one of the network elements comprising an IP subtending network element having a second processor, an active memory and a first random access memory that is coupled for communication with the active memory;

at least a second one of the network elements comprising a gateway having a second random access memory, a second interface, and a third processor;

the second processor being operable to copy configuration files from the active memory to the first random access memory;

the third processor being operable to copy the configuration files from the first random access memory to the second random access memory;

the second interface being operable to receive the configuration files using OSI FTAM protocol; and

the first processor being operable to copy the configuration files from the second random access memory to the memory.

16. (Previously Presented) The network element manager of Claim 12, further comprising:

a first processor;

wherein the first processor is operable to detect a corrupted network element database associated with one of the plurality of network element, and restore the corrupted network element database with configuration data regarding the corrupted network element database, the configuration data being stored at the memory of the network element manager.

17. (Previously Presented) The network element manager of Claim 16, wherein the network element having the corrupted network management database comprises an OSI network element, and further comprising:

the OSI network element having a second processor, a random access memory and a standby memory that is coupled for communication with the random access memory;

the first processor being further operable to copy configuration files from the network element manager to the random access memory;

the second processor being operable to copy the configuration files from the random access memory to the standby memory; and

the second processor being further operable to activate the standby memory.

18. (Previously Presented) The network element manager of Claim 16, wherein the network element having the corrupted network management database comprises an IP gateway network element, and further comprising:

the IP gateway network element having a second processor, a random access memory and a standby memory that is coupled for communication with the random access memory;

the first processor being operable to copy configuration files from the network element manager to the random access memory using FTP protocol;

the second processor being operable to copy the configuration files from the random access memory to the standby memory; and

the second processor being further operable to activate the standby memory.

19. (Previously Presented) The network element manager of Claim 16, wherein the network element having the corrupted network management database comprises an IP subtending network element, and further comprising:

at least one of the network elements comprising a gateway having a second processor and a first random access memory;

the IP subtending network element having a third processor, a second random access memory and a standby memory that is coupled for communication with the second random access memory;

the first processor being operable to copy configuration files from the network element manager to the first random access memory;

the second processor being operable to copy the configuration files from the first random access memory to the second random access memory using OSI FTAM protocol;

the third processor being operable to copy the configuration files from the second random access memory to the standby memory; and

the third processor being further operable to activate the standby memory.

20. (Previously Presented) A telecommunications system, comprising:

a network element manager having a processor, an interface, and a memory;

a plurality of network elements that provide voice connectivity, each network element being coupled for communication with the network element manager using at least one telecommunications network control channel;

each of the network elements being operable to store respective local configuration data;

the interface being operable to receive the local configuration data from the plurality of network elements; and

the memory being operable to store the local configuration data at the memory.

21. (Previously Presented) A method for managing a plurality of network elements of a telecommunications network, comprising:

coupling a telephony network element manager with a plurality of network elements of a voice and data network, using at least one telephony network control channel;

each telephony network element being operable to store respective local data regarding the configuration or operation of the telephony network element;

receiving, from each of the plurality of telephony network elements, the respective local data;

storing the respective local data at a database of the telephony network element manager;

wherein at least one of the plurality of telephony network elements comprises an IP gateway network element having an active memory and a random access memory that is coupled for communication with the active memory;

copying configuration files to the random access memory, from the active memory; and

copying contents of the random access memory to the telephony network element manager using FTP protocol.

Appendix B: Submitted Amendments

4. A method for managing a plurality of network elements of a telecommunications network, comprising:

coupling a telecommunications network element manager with a plurality of network elements that provide voice network connectivity, using at least one telecommunications network control channel;

each network element being operable to store respective local data regarding the configuration or operation of the network element;

receiving, from each of the plurality of network elements, the respective local data; and

storing the respective local data at a database of the network element manager remotely from the network elements.

12. A network element manager, comprising:

an interface being operable to communicate with a plurality of network elements of a voice and data network, using at least one telecommunications network control channel, and receive respective local configuration data regarding the plurality of network elements; and

a memory operable to store the respective local configuration data regarding the plurality of network elements remotely from the network elements.

20. A telecommunications system, comprising:

a network element manager having a processor, an interface, and a memory;

a plurality of network elements that provide voice connectivity, each network element being coupled for communication with the network element manager using at least one telecommunications network control channel;

each of the network elements being operable to store respective local configuration data;

the interface being operable to receive the local configuration data from the plurality of network elements; and

the memory being operable to store the local configuration data at the memory remotely from the network elements.

21. A method for managing a plurality of network elements of a telecommunications network, comprising:

coupling a telephony network element manager with a plurality of network elements of a voice and data network, using at least one telephony network control channel;

each telephony network element being operable to store respective local data regarding the configuration or operation of the telephony network element;

receiving, from each of the plurality of telephony network elements, the respective local data;

storing the respective local data at a database of the telephony network element manager remotely from the network elements;

wherein at least one of the plurality of telephony network elements comprises an IP gateway network element having an active memory and a random access memory that is coupled for communication with the active memory;

copying configuration files to the random access memory, from the active memory; and

copying contents of the random access memory to the telephony network element manager using FTP protocol.

Appendix C: Evidence

NONE

Appendix D: Related Proceedings

NONE